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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/686,621	10/12/2000	Jacob Mannerstrale	027557-063	5483

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BURNS DOANE SWECKER & MATHIS L L P  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

EXAMINER

FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 01/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/686,621

**Applicant(s)**

MANNERSTRALE, JACOB

**Examiner**

Derrick W. Ferris

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5-7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the United Kingdom on 10/13/1999. It is noted, however, that applicant has not filed a certified copy of the 9924255.4 application as required by 35 U.S.C. 119(b).

### *Specification*

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: The Control and Allocation of Time Slots in a Radio Transceiver.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 2, 7-10, 13-14 and 25-26** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,519,886 A to *Gilbert et al.* (“*Gilbert*”).

As to **claim 1**, *Gilbert* teaches a method and apparatus for controlling device temperature during transmissions. In particular, with respect to a radio transceiver, *Gilbert* teaches the following steps: for monitoring a temperature which has a direct effect on the comfort of a user of the transceiver see e.g., column 2, lines 10-30 and for

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controlling a number of slots allocated for transmission from said transceiver in response to the monitored temperature see e.g., column 3, lines 17-53. Examiner notes a broad but reasonable interpretation of “comfort for the user”. Examiner also notes a broad but reasonable interpretation of “number of slots”.

As to **claim 2**, see similar rejection for claim 1.

As to **claims 7-10**, see similar rejection for claims 1 and 2 respectively.

As to **claims 13-14**, see similar rejection for claims 1 and 2 respectively.

As to **claims 25-26**, see similar rejection for claims 1 and 2 respectively.

Examiner notes a reasonable but broad interpretation of “mode of operation”.

5. **Claims 15-17, 23, 24 and 25-26** are rejected under 35 U.S.C. 102(a) as being anticipated by GB 2 328 588 A to *Seo*.

As to **claim 15**, *Seo* discloses adjusting activity intervals according to the remaining battery capacity in a mobile communication terminal. In particular, *Seo* teaches adjusting the slot cycle, which reads on “controlling a number of slots allocated for transmission from said transceiver in response to the monitored batter capacity” (i.e., applicant does not further recite in the claims controlling consecutive time-slots in a frame).

As to **claim 16**, see similar reasoning for rejecting claim 15.

As to **claims 17**, see e.g., figure 2.

As to **claim 23**, see similar reasoning for rejecting claim 15.

As to **claim 24**, see similar reasoning for rejecting claim 16.

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As to **claims 25-26**, see similar rejection for claims 1 and 2 respectively.

Examiner notes a reasonable but broad interpretation of "mode of operation".

6. **Claims 25-31** are rejected under 35 U.S.C. 102(a) as being anticipated by GB 2 328 588 A to *Seo*.

As to **claims 25-26**, see e.g., column 4, lines 15-29.

As to **claim 27**, see e.g., column 5, lines 10-20.

As to **claim 28**, see e.g., column 1, lines 15-35.

As to **claims 29-30**, see e.g., column 4, lines 40-55 and column 5, lines 10-20.

As to **claim 31**, see e.g., 5, lines 4-14.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 3 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,519,886 A to *Gilbert et al.* ("*Gilbert*") in view of U.S. Patent No. 5,883,493 A to *Koenck*.

As to **claims 3 and 5**, *Gilbert* discloses the general concept of monitoring external devices, e.g., see column 4, lines 7-20 (i.e., "other temperature sensitive modules").

*Gilbert* is silent or deficient to the further limitation of monitoring specific modules such as the temperature of a casing, the display, or the battery of the device.

*Koenck* teaches the further recited limitation for monitoring the temperature of a battery case and a battery at column 3, line 62 – column 4, lines 5.

Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include monitoring the temperature of other modules such as the temperature of a casing, the display, or the battery of the device. In particular, one skilled in the art would be motivated to performing monitoring the temperature of various other modules that improve the "user experience". The suggestion or motivation for doing so would have been to improve battery reliability or to increase performance of the LCD. In particular, *Koenck* cures the above-cited deficiency by providing a motivation found at column 3, line 62 – column 4, lines 5.

9. **Claims 4 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,519,886 A to *Gilbert et al.* ("*Gilbert*") in view of U.S. Patent No. 5,475,741 A to *Davis et al.* ("*Davis*").

As to **claim 4**, *Gilbert* discloses the general concept of monitoring external devices, e.g., see column 4, lines 7-20 (i.e., "other temperature sensitive modules").

*Gilbert* is silent or deficient to the further limitation of monitoring specific modules such as the temperature of a casing, the display, or the battery of the device.

*Davis* teaches the further recited limitation for monitoring the temperature of a display at column 6, lines 29-44.

Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include monitoring the temperature of other modules such as the temperature of a casing, the display, or the battery of the device. In particular, one

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skilled in the art would be motivated to performing monitoring the temperature of various other modules that improve the “user experience”. The suggestion or motivation for doing so would have been to improve battery reliability or to increase performance of the LCD. In particular, *Davis* cures the above-cited deficiency by providing a motivation found at column 4, lines 65-68.

As to **claim 12**, see similar rejection for claim 4.

10. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,519,886 A to *Gilbert et al.* (“*Gilbert*”) in view of U.S. Patent No. RE 36,973 to *Shigemori*

As to **claim 11**, see similar reasoning for the rejection of claims 3-5 where *Gilbert* is silent or deficient to specifically monitoring the temperature of a crystal oscillator within a device. *Shigemori* cures the above-cited deficiency and provides a motivation in the Background, e.g., see column 3, lines 35-65. Thus it would have been obvious using the same reasoning as mentioned above.

11. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,519,886 A to *Gilbert et al.* (“*Gilbert*”) in view of U.S. Patent No. 5,870,685 A to *Flynn*.

As to **claim 6**, *Gilbert* is silent or deficient to the further limitation of wherein the number of allocated slots is controlled by sending a message to the radio communication system.

*Flynn* teaches the further recited limitation e.g., at column 6, lines 13-41 (e.g., a channel assignment message).

Examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to include the further limitation of wherein the number of allocated

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slots is controlled by sending a message to the radio communication system. In particular, one skilled in the art would be motivated to use a message to let the receiving end know how many time slots are in use. The suggestion or motivation for doing so would have been to use more than one time slot. In particular, *Flynn* cures the above-cited deficiency by providing a motivation found at e.g., column 6, lines 13-41.

12. **Claims 18, 19, 21, and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2 328 588 A to *Seo* in view of U.S. Patent No. 5,248,929 A to *Burke*.

As to **claims 18, 19, 21, and 22**, *Seo* is silent or deficient to the further limitations of wherein the battery capacity is estimated indirectly and as a measure of past use (e.g., the number of time slots in which the transceiver has transmitted data or the past current consumption of at least a part of the transceiver).

Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitations of wherein the battery capacity is estimated indirectly and as a measure of past use (e.g., the number of time slots in which the transceiver has transmitted data or the past current consumption of at least a part of the transceiver). In particular, *Burke* cures the above-cited deficiencies at page 3, lines 5-41. One would be motivated to modify *Seo* to include the teachings of *Burke* to improve the battery capacity of a cellular telephone.

13. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2 328 588 A to *Seo* in view of U.S. Patent No. 5,248,929 A to *Burke* in further view of U.S. Patent No. 5,774,784 to *Ohno*.



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As to **claim 20**, *Seo* is silent or deficient to the further limitation of wherein the battery capacity is estimated on the basis of a temperature thereof.

Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation of wherein the battery capacity is estimated on the basis of a temperature thereof. In particular, *Ohno* cures the above-cited deficiencies in the abstract by providing a relationship between power and temperature as a motivation.

14. **Claim 28** is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,519,886 A to *Gilbert et al.* ("*Gilbert*") in view of U.S. Patent No. 6,490,447 B2 to *Biedermann et al.* ("*Biedermann*").

As to **claim 28**, *Gilbert* is silent or deficient to the further limitation of when the transceiver is operating in a radio frequency simplex system.

Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation of when the transceiver is operating in a radio frequency simplex system. In particular, *Biedermann* cures the above-cited deficiencies in the Background by teaching that simplex systems for TDMA are well known in the art were TDMA is a motivation e.g., see column 1, lines 15-33.

15. **Claim 28** is rejected under 35 U.S.C. 102(b) as being anticipated by GB 2 328 588 A to *Seo* in view of U.S. Patent No. 6,490,447 B2 to *Biedermann et al.* ("*Biedermann*").

As to **claim 28**, *Seo* is silent or deficient to the further limitation of when the transceiver is operating in a radio frequency simplex system.

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Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation of when the transceiver is operating in a radio frequency simplex system. In particular, *Biedermann* cures the above-cited deficiencies in the Background by teaching that simplex systems for TDMA are well known in the art were TDMA is a motivation e.g., see column 1, lines 15-33.

***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- ❑ US006044069A discloses that fewer time slots in a frame reduce the power consumed and conserves the battery e.g., see Abstract.
- ❑ US006169884B1 (cited as WO 99/52218) inserts brief pauses in intervals to conserve battery power which is claimed in applicant's UK patent but not the current application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

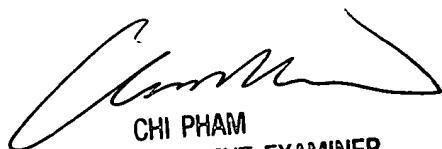
Derrick W. Ferris  
Examiner  
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